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TIME VARIATIONS IN NORTH CAROLINA BIRTHS, 1974-76

Interest in patterns of vital events has prompted considerable research in this area. Results show that factors such as season of year, day of week, and time of day affect the occurrence of births and certain causes of mortality (1,2). Some researchers even suggest that lunar phases influence the timing of events (3).

In light of this research, a study was conducted using North Carolina birth data for 1974-76 to determine if differences occur in the distribution of births by certain variables of time. Births by day of week, month and season of year, and lunar phase were examined, and chi-square tests were applied to the data to detect statistical significance.

Births by Day of Week

The maximum number of births in the United States occurs near midweek (1). An analysis of North Carolina births for a three-year period supports this finding; more babies arrived on Tuesday than on any other day.

Had each day of the week occurred an equal number of times during the three years, one would expect approximately the same number of births to occur each day, Monday through Sunday. Such, however, is not the case; even after adjustment for an equal number of days, large disparities exist in numbers of births per day. The weekends are particularly different from the weekdays.

Table 1 shows adjusted daily totals of North Carolina resident live births during 1974-76. Almost 19 percent more births occurred on Tuesday than on Sunday, the day with the fewest births. The next smallest number of births occurred on Saturday while Friday ranked second in highest number of births.

Table I
Resident Births by Day of Week by Race
North Carolina, 1974-76

<u>Day of Week</u>	<u>Total</u>	<u>White</u>	<u>Nonwhite</u>
Sunday	31,190	20,525	10,665
Monday	35,982	24,565	11,417
Tuesday	37,114*	25,666*	11,448*
Wednesday	35,839*	24,813*	11,026*
Thursday	35,750*	24,618*	11,132*
Friday	36,252*	25,123*	11,129*
Saturday	32,624	22,044	10,580

*A total of 157 Tuesdays, Wednesdays, Thursdays, and Fridays occurred during 1974-76. These days were adjusted to 156-day bases in order to maintain comparability.